Teens & Suicide: Warning Signs, Recognition, Treatments and Follow-up

Robert Sears, MD

Special thanks to Gary Daniels, PMHNP

Robert C. Sears, M.D.
Child Psychiatrician
2210 Eldorado Avenue, Klamath Falls, OR 97601
(541) 883-1030

NAME ____________________ DATE ________

ADDRESS ____________________

℞

The Plan

- I've got to give you some statistics
- How to approach teenagers
- What risk factors matter? What protective factors matter?
- What data should I collect?
- Psychometric tools
- What treatments work
- How to make a safety plan
- Attachments
  - Oregon Youth Suicide Facts
  - Youth Suicide Fact Sheet
  - Suicide Assessment Five-step Evaluation & Triage (SAFE-T)
  - Resources- some websites etc. regarding adolescent suicide
  - Screening tool examples

Résumé

Dorothy Parker

Razors pain you;
Rivers are damp;
Acids stain you;
And drugs cause cramp.
Guns aren't lawful;
Nooses give;
Gas smells awful;
You might as well live.

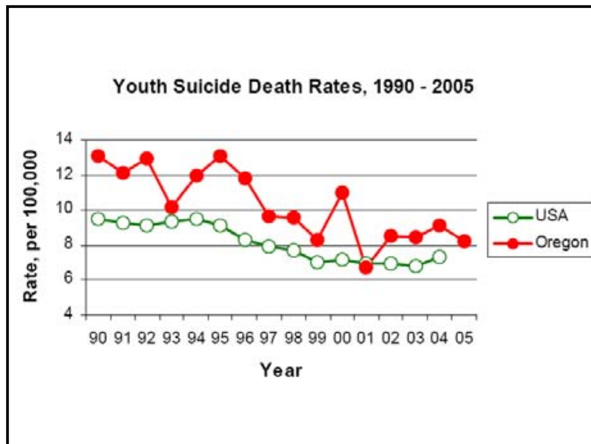
Here's the bare minimum you should know

- **This actually matters for child health**
  - Suicide was the 3rd leading cause of death in 2004 (ages 15-19 & 15-24), behind accidents and homicides
  - Suicide accounts for 12.3% of all deaths among ages 15-24 (CDC 2004)
- **Most attempts do not result in death!**
  - For every suicide completed by youth, 100-200 attempts are made
  - The suicide rate is still only 7.32/100,000 as of 2004 (CDC)
- **Thoughts of suicide are very common**
  - 17-19% seriously contemplate suicide (2003 YRBSS)
  - In 2005 8.4% of high school students reported making an attempt in the last year (YRBS 2005)
- **Firearms** still account for 49% of completed suicides ages 10-19 (Greydanus DE 2006)

Here's what we see locally

- Oregonian numbers
  - In 2005, suicide was 2nd cause of death for those aged 10 – 24, with 61 Oregon youth dead
  - 93% were male, 69% used firearms
  - There were twice as many suicides as homicides
  - 1800 youth (10 – 17) were treated at ERs in 2004
  - 77% of these attempts were by females
  - In 2004 Oregon ranked 15th in the nation for number of suicides (ages 10-24)

    (Oregon Adolescent Suicide Attempt Data 2004)



A concerning trend

- From 2003 to 2004, the rate (for persons aged 10 – 24) increased by 8.0%, from 6.78 to 7.32, the largest single-year increase since 1990 (which started a 28.5% decline)
- From 2003 to 2004, suicide rates for three sex-age groups increased significantly
  - Girls 10-14: 0.95 (up from 0.54 = 76% increase)
  - Girls 15-19: 3.52 (up from 2.66 = 32% increase)
  - Boys 15-19: 12.65 (up from 11.61 = 9% increase)

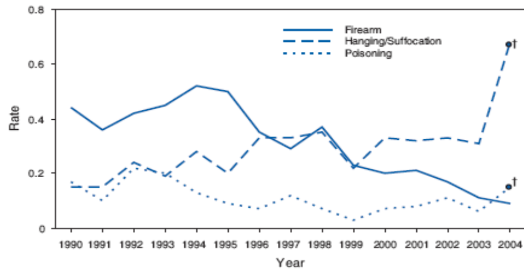
(MMWR 2007)

Scary Numbers

- Suicides both by hanging/suffocation and poisoning among females aged 10 – 14 years and 15 – 19 years increased from 2003 to 2004 and **were significantly in excess of trends**
- Hanging or suffocation are now the primary means of completed suicide in child/adolescent girls
  - 74% of completions ages 10-14
  - 49% of completions ages 15-19
- Females still make ~ 3 times mores attempts; males 2 times more likely to complete

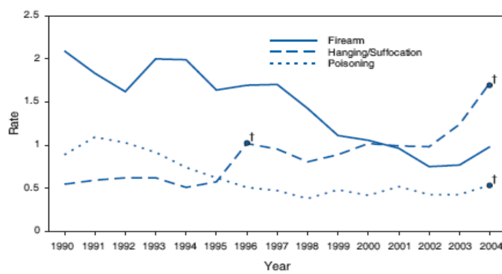
(MMWR 2007)

FIGURE 1. Yearly suicide rates* for females aged 10–14 years, by method — National Vital Statistics System, United States, 1990–2004



*Per 100,000 population.
†Standardized Pearson residual >2.

FIGURE 2. Yearly suicide rates* for females aged 15–19 years, by method — National Vital Statistics System, United States, 1990–2004



*Per 100,000 population.
†Standardized Pearson residual >2.

How should I approach a teenager I'm concerned about ?

What how does a suicidal teen look and act?

What are the risk factors?

What questions should I ask, what data should I obtain?

When and how should I ask?

- Recommended as part of screening for risk factors on "well child" visits
- All adolescents with symptoms of depression should be asked about suicidal ideation
- No data indicates that inquiries about suicide precipitates the behavior
- Asking adolescents about suicide actually decreases scores on subsequent risk measures (Gutierrez & Osman 2008)
- For most adolescents the "cry for help" is an attempt
  - To resolve a difficult conflict
  - Escape an intolerable situation
  - Make someone understand their feelings
  - Or make someone else feel guilty

  (Committee on Adolescence 2004)

Dx of depression is beyond today's scope

- Adolescent depression can be
  - like adult presentations with symptoms such as *depressed mood, crying spells, inability to cry, discouragement, irritability, sense of emptiness, low self esteem, diminished pleasure in normal activities, significant wt loss, insomnia, hypersomnia, fatigue, poor concentration and feelings of worthlessness/hopelessness*
  - More often adolescents with serious depression exhibit
    - psychosomatic symptoms: *recurrent or persistent complaints, such as abdominal pain, chest pain, headache, lethargy, weight loss, dizziness and syncope, or other nonspecific symptoms*
    - Behavioral problems: *truancy, deterioration in academic performance, running away from home, defiance of authorities, self-destructive behavior, vandalism, alcohol and other drug abuse, sexual acting out, and delinquency*

(Committee on Adolescence 2004)

Teens are easy to talk to, right?

- To initiate the conversation about suicide try asking a general question
  - "Have you ever felt so unhappy or stressed that you thought about killing yourself or wished you were dead?"
- With a positive response, ask more specifics (method, time, place, means, intent) and initiate referrals or a risk assessment if necessary
- Usually, 1st ask about suicide without the parent or guardian in the room

What we see in hindsight

- Clinical features of completed suicide in teenagers
  - Psychiatric diagnosis present in about 90% prior to death
  - Depression alone or with other symptoms in well over half of completed suicides
  - 20-50% have a previous attempt
  - Alcohol abuse present in 2/3rds of older males but uncommon in younger males (<14) and females
  - Statements of **hopelessness** present in half of all suicides (but common feature of depression with or without suicidality)
  - Aggressive/impulsive behavior common in both sexes
  - Problem solving deficits – common to teens
  - Sexual orientation – gay and lesbian youth have higher rates for ideation and attempts

(Shaffer et al. 2007)

- Environmental Factors
  - Sexual & physical abuse – increased risk with "dose response"
  - Religious beliefs may have a protective effect
  - Family dysfunction common, but main issues seems to be **less frequent or lack of full communication with parent(s)**
- When and where?
  - Most suicides occur after school hours in the adolescent's home
  - Most adolescent suicides are precipitated by interpersonal conflict
- There are four clinically significant psychological variables:
  - Hopelessness, Hostility, Negative Self-concept, Isolation

(NCIPC 2004)

Risk Factors - Primary

- Primary Risk Factors:
  - Boys: Prior attempt, depression, substance abuse
  - Girls: Prior attempt, depression
- Since depression is one of the top two risk factors for boys and girls, mood assessment is an essential part of risk assessment (remember statements of hopelessness)
- One prior attempt raises the risk of completion by 15-fold (Robins & Chapman 2004)
- Even though substances are not statistically predictive for girls (depends on source) always assess for A/D abuse

(Gould et. Al 1998; Rutter & Behrendt 2004)

Other risk factors

- Other Psychiatric Diagnoses
- History of Family (2-3fold increase) / Friend Suicide
- Sexual / Physical Abuse
- Significant Family Discord (especially poor communication)
- Significant Peer / Relationship Conflict
- Disciplinary Problems
- Academic Problems
- Multiple / Recent Losses (real or perceived)
- Sexual Issues or Multiple / Early Pregnancies
- Serious Acute or Significant Chronic Illness
- Access to lethal method (firearms)

(Daniels 2008; Joint Commission 2007)

Protective Factors

- Future orientation – any reason for being alive
- Identification of caring individuals in one's life
- Sincere identification of plan / attempt as a mistake
- Acted in some way to rescue him/herself
- Able and willing to participate in safety plan
- **Responsible parties** available to provide supervision
- Willing to permit supervision
- Able to identify alternative coping skills
- Patient / family willing to accept professional services
- Patient assessed as a reliable self-reporter

Current Ideation / Plan: Other Considerations

- How committed is the person to a single plan?
  - If there is strong commitment to a single method, safety planning is easier
- Has the plan evolved over time?
  - Everything gets better with practice
- Does the plan include anyone else (pact, lookout, assistant)?
  - Safety planning must include collateral participants

Can’t I just use some sort of psychometric tool that will tell me who is in danger?

“rating scales cannot substitute for thoughtful and clinically appropriate evaluation and are not recommended for clinical estimations of suicide risk.” (Joint Commission Standards 2007)

- Suicide rating scales are mostly informed by extrapolation of adult data
- Studies are limited by the infrequency of the event, funding, and ethical concerns
- Self-report tools have limitations in this age group
- It is not realistic (at this point) to use any **single** test/tool as a reliable screening tool or a reliable predictor for adolescents
- Evaluating data which indicates high risk is inadequate / inaccurate without balancing this against protective factors
- The use of specific rating scales can reliably predict subsequent suicide attempts in inpatient populations

This may just be for the psychologists out there…

- Highly recommend: Gutierrez P & Osman A. 2008 Adolescent Suicide: An Integrated Approach to the Assessment of Risk and Protective Factors
- In particular, the following tools:
  - SIQ (Suicide Ideation Questionnaire); 30 item appropriate for grades 10-12; simple to complete and grade
  - SHBQ (Self-Harm Behavior Questionnaire), good for 13 and older, longer but allows for some open ended responses
  - RFL-A (The Reasons for Living Inventory); 32 item measure of 5 protective domains, useful for age 14 and older
  - PANSI (Positive and Negative Suicide Ideation inventory); combines strengths and weaknesses in a 14 item tool; can provide insight into protective factors to strengthen and risk factors to target; reasonable tool to monitor progress over time

What do I do about an adolescent who has made an attempt or is seriously suicidal?

The data on collecting data

- Kennedy et. al. (2004) made an exhaustive review of the literature and recommended the following data be collected in an ER setting:
  - The frequency of suicidal thoughts and how long these have been present
  - The plan for the suicide, with details and the lethality of the method
  - Past history of suicide attempts
  - The patient's access to the means of suicide
  - The history of psychiatric illness, with particular attention to diagnosis and medications
  - Whether drug or alcohol use is present
  - Family history of psychiatric illness, substance abuse, and suicide
  - The relationships between the patient and parents or guardians
  - Whether physical or sexual abuse occurred in the past
  - The sexual orientation of the patient
  - Evaluation of stressors
  - Assess whether a reason for living can be stated

Other Considerations

- If the subject considers it an attempt, it *was* an attempt
- If there are multiple prior attempts, at a minimum assess the most recent *and* the most lethal attempt
- Remember that a stubborn individual can make a significant gesture simply to prove you wrong
- Never discharge a patient from the hospital for ER for an attempt or suicidality without getting collateral information and a phone # to call

An organized and thorough approach

- SAFE-T (Suicide Assessment Five-step Evaluation and Triage) – *see attachments to this presentation*
  - 1. Identify ***risk factors***, noting those that can be **modified** to reduce risk
  - 2. Identify ***protective factors***, noting those that can be ***enhanced***
  - 3. Conduct suicide inquiry: suicidal thoughts, plans, behavior and intent
  - 4. Determine ***level of risk*** and choose appropriate intervention to address and reduce risk *(see next screen)*
  - 5. ***Document*** the assessment of risk, rationale, intervention and follow-up on instructions

---

- The Joint Commission and American Academy of Pediatrics both recommend that we categorize suicide risk level into High, Moderate and Low
- The SAFE-T hand out details this; some examples
  - Low risk
    - Took 5 ibuprofen tablets after argument with girlfriend
    - Impulsive; told mother 15 minutes after taking pills
    - No serious problems at home or school
    - Occasionally feels "down" but has no history of depression or serious emotional problems
    - Has a number of good friends
    - Wants help resolving problems and is no longer considering suicide after interview
  - Moderate risk
    - Suicidal ideation precipitated by recurrent fighting with parents and failing grades in school
    - Wants to "get back" at parents
    - Cut both wrists while at home alone; called friend 30 minutes later
    - Parents separated, changed school this semester, history of attention-deficit hyperactivity disorder
    - Symptoms of depression for the last 2 months, difficulty controlling temper
    - Binge drinking on the weekends
    - Answers all the questions during the interview, agrees to see a therapist if parents get counseling, will contact the interviewer if suicidal thoughts return
  - High risk
    - Thrown out of house by parents for smoking marijuana at school, girlfriend broke up with him last night, best friend killed in auto crash last month
    - Wants to be dead; sees no purpose in living
    - Took father's gun; is going to shoot himself where "no one can find me"
    - Gets drunk every weekend and uses marijuana daily
    - Hates parents and school; has run away from home twice and has not gone to school for 6 weeks
    - Hospitalized in the past because he "lost it"
    - Does not want to answer many of the questions during the interview and hates "shrinks"

What are the treatment options?

How do I make a safety plan?

There is minimal controlled evidence on optimal treatment approaches

- Pycho-education – patient, parents and peers need to understand what to do in periods of vulnerability and parents should be counseled to reduce expressed emotion
- CBT – helps patient identify negative feeling states, correct irrational ideas and become aware of options; often rehearse strategies for crisis situations
- DBT – emphasizes management of interpersonal conflicts and painful situations, self observation and regulation of affect
- Involving *family* in treatment – reduces parent-child conflict, improves communication and often reduces teens feelings of hopelessness and anger

(Shaffer et al. 2007)

The quick fix

- Medication
  - Controversy over SSRI's,
    - In a suicidal patient the risk-benefit ratio recommends intervention
    - no evidence that actual risk of completion is increased with SSRIs
    - Possible that spike in suicide in 2003 secondary to black box warning
    - Most studies of antidepressants (and other drugs) exclude suicidal patients
    - Number needed to treat for therapeutic response = 3-10; number needed to harm (makes an attempt that would not otherwise have been made) = 112-200
  - Lithium – reduces suicidal preoccupation in depressed and non-depressed adults; independent anti-suicide and neuroprotective effect
  - Clozapine – reduces suicidality in Adults with Schizophrenia
- Remember that evidence consistently supports the combination of medication with therapy as the most effective treatment for depression

(Shaffer et al 2007; Bridge et al. 2007; March et al 2004)

To contract or not to contract

- Studies do not support efficacy of No-Harm contracts
- Still, document a safety plan; safety planning and skills building does have clinical support
- Involve as many trustworthy people as possible
  - Prioritize family
  - Secondary are professionals, other supports, friends
  - "Responsible party" and always consider developmental stage
- Spell out everything
  - Who, what, when, for how long, where, when reviewed
- Include in the plan any given reason for rescue
  - And include it in an obvious way
  - Remember the question, "So what stopped you?"

(Robins & Chapman 2004; Daniels 2008)

Creating a 5-Tier Safety Plan

- No-Harm contract is absolute and focuses only on what the patient *can't* do – self injury or suicide
- 5-Tier plan is psycho-educational, focuses on choices the patient *can* make
- The clinician **elicits** patient's preferred choices
- Those choices are then filled in to the general outline to create a patient-specific safety plan

5-Tier Plan – Format

If I feel unsafe or want to harm myself, I will:

1. Passive Distraction
   - Do something to occupy your mind
2. Active Distraction
   - Do something active to occupy yourself
3. Non-professional Support
   - Talk to / Be with someone who will provide supervision
4. Professional Support
   - Connect with a professional support, national hotlines
5. Forced Safety
   - Emergency Department, 911

(Daniels 2008)

5-Tier Plan – Example

If I feel unsafe or want to harm myself, I will:

1. Play Nintendo, watch a movie, color a picture, read a book, listen to music, or text phone messages
   - If I still feel unsafe, I will:
2. Pet my cats, ride my skateboard, shoot hoops, hang out at Fred Meyer, ride my horse or do push-ups
   - If I still feel unsafe, I will:
3. Play cards with my uncle, watch TV with my family, or talk to my mother
   - If I still feel unsafe and they cannot keep me safe, I will:
4. Call my therapist, "Penelope" at (541-555-4666); or call the national hotline at 1-800-273-TALK
   - If I still feel unsafe or if my therapist tells me too, I will:
5. Have my mother take me to the ER or call 911

Deep thoughts

- *Always* err on the side of safety
  - False positive far more unacceptable than false negative
- An awkward equation:
  - Disposition = (Protective – Risk) x gut instinct (Daniels 2008)
  - Local availability of resources vs hospitalization
  - Usually, if you can keep a teenager safe a little longer, the situation will no longer require hospitalization
- We still end up being responsible
  - Support your conclusions and your thinking as you would any diagnosis that has risk
  - It's ok to emphasize the data that supports your argument
  - A trustworthy "responsible party" makes for better safety planning
  - Pass the buck but don't drop the ball
- I will not try to comment on local resources but you need to know them – enormous amount of information on the web (see the links provided)

Bibliography (page 1)

- *A Resource Guide for Implementing* The Joint Commission *2007 Patient Safety Goals on Suicide Featuring the Suicide Assessment Five-step Evaluation and Triage (SAFE-T)* Douglas Jacobs, MD
- Bridge JA, et al. Clinical response and risk for reported suicidal ideation and suicide attempts in pediatric antidepressant treatment: a meta-analysis of randomized controlled trials. *JAMA* 2007;297:1683-96
- Centers for Disease Control, National Center for Injury Prevention and Control, WISQARS 2006 (http://webappa.cdc.gov/sasweb/ncipc/mortrate10_sy.html)
- Daniels, G. 2008; presentation given at the Klamath Youth Development Center
- Greydanus DE. Epidemiology and assessment of suicidal behaviors and depression. Program and abstracts of the Pediatric Academic Societies' 2006 Annual Meeting; April 29-May 2, 2006; San Francisco, California.
- Gutierrez P & Osman A. 2008 Adolescent Suicide: An Integrated Approach to the Assessment of Risk and Protective Factors; Northern Illinois University Press
- Gould MS, Shaffer D, Fisher P, Garfinkel R. Separation/divorce and child and adolescent completed suicide. J Am Acad Child Adolesc Psychiatry.1998;37:155-162.
- Joint Commision's standards (2007) : http://www.jointcommission.org/PatientSafety/NationalPatientSafetyGoals
- Kennedy SP, Baraff LJ, Suddath RL, Asarnow JR. Emergency department management of suicidal adolescents. Ann Emerg Med. 2004;43:452-460.
- March J, Silva S, Petrycki S, et al. Fluoxetine, cognitive behavioral therapy, and their combination for adolescents with depression: Treatment for Adolescents with Depression Study (TADS) randomized controlled trial. *JAMA* 2004; 292(7):807-20.

Bibliography (page 2)

- **Morbidity and Mortality Weekly Report (MMWR),** Centers for Disease Control and Prevention **September 7, 2007 / 56(35);905-908**
- National Center for Injury Prevention and Control (NCIPC) website (www.cdc.gov/ncipc/wisqars/default.htm), Centers for Disease Control and Prevention (CDC)
- Oregon Adolescent Suicide Attempt Data 2004 (http://www.dhs.state.or.us/dhs/ph/chs/data/arpt/04v2/chp8toc.shtml)
- Oregon Center for Health Statistics, Preliminary Data (Final Report for 2005 will be available at http://www.dhs.state.or.us/dhs/ph/chs/data/vol2.shtml)
- Oregon Healthy Teens Survey 2006, Oregon Center for Health Statistics
- (http://www.dhs.state.or.us/dhs/ph/chs/youthsurvey/index.shtml)
- Robins CJ, Chapman AL. Dialectical behavior therapy: current status, recent developments, and future directions. J Personal Disord. 2004;18:73-89
- Rutter PA, Behrendt AE. Adolescent suicide risk: four psychosocial factors. Adolescence. 2004;39:295-302.
- Shaffer et al. 2007, Teen Suicide Fact Sheet; Department of Child Psychiatry, New York State Psychiatric Institute, 1051 Riverside Drive, New York, New York 10032 (212) 543-5948
- **Suicide and Suicide Attempts in Adolescents; Committee on Adolescence;** PEDIATRICS Vol. 105 No. 4 April 2000
- YRBSS 2003 (Youth Risk Behavior Surveillance Survey)

- Age
  - Pre-puberty equally rare in both genders, all countries
- Ethnicity
  - American Indians/Alaska natives consistently have the worst statistics, but huge regional differences
  - Lowest for Asians, pacific islanders, and AA
  - Hispanic females same as not hispanic, lower for hisp males
  - Being AA is steadily “loosing its protective effect”
  - AA suicides generally have a higher SES
- Education
  - Suicides less likely to attend college

What made for the decline we’ve seen?

- Not supported
  - Use of drugs and alcohol-rate of use increased with declining suicide rate
  - Increased availability of suicide-awareness programs
  - Increased availability of psychotherapies—there is no increased availability except for DBT and that is only recent for adolescents
- Some support
  - The Brady Bill in 1994- reduction of gun availability (reason for increased suffocation?!)
  - Psychoeducation and destigmatization of depression (done by drug company ads?)
  - Inproved ER care
  - Antidepressants-increased use conincided with decreaseing trends

Is it catching?

- Suicide contagion
  - After a film or news story on suicide rates go up briefly
  - After implementation of suicide guidelines rates go down
  - After newspaper strikes suicide rates go down (!)
  - Plenty of case studies of suicide committed imitating a friend or after reading about suicide
  - Clusters occur in high schools or communities
  - Typically, result in death of 3-7 teens over a period of 3 to 9 months usually after an initial public suicide

It’s all in your head

- Neurochemical abnormalities
  - Abnormally low levels of Serotonin (5HT) metabolites found in CSF at autopsy
  - Dysfunction (less serotonin) in ventral prefrontal cortex (key in behavioral control—ie leads to impulsiveness, excitability, and intense stress response)
  - Increased post synaptic 5HT receptor density in this region (compensation)
  - Twin studies indicate higher concordance of suicidal behavior
  - Suicide appears to be an independent, inheritable risk factor

Medicating the youthful

- Start with low dose and long half life (ie fluoxitine at 10mg / day)
- Schedule a follow-up
- Consider weekly contact in person or by phone (prescriber, staff or therapist) during 1st few weeks
- Don’t provide refills initially (to encourage f/u)
- F/U on Suicidal thoughts, hopelessnes and AD use
- Try to get them in therapy

SUICIDE RISKS IN SPECIFIC DISORDERS

Condition	RR	%/y	%-Lifetime
Prior suicide attempt	38.4	0.549	27.5
Eating disorders	23.1		
Bipolar disorder	21.7	0.310	15.5
Major depression	20.4	0.292	14.6
Mixed drug abuse	19.2	0.275	14.7
Dysthymia	12.1	0.173	8.6
Obsessive-compulsive	11.5	0.143	8.2
Panic disorder	10.0	0.160	7.2
Schizophrenia	8.45	0.121	6.0
Personality disorders	7.08	0.101	5.1
Alcohol abuse	5.86	0.084	4.2
Cancer	1.80	0.026	1.3
General population	1.00	0.014	0.72